

U.S. PTO
1535 09/29/97

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR: WILLIAM POSSIDENTO

TITLE: DISTILLATION DEVICE

5 SERIAL NUMBER: 08/762717

FILING DATE: 12/10/96

GROUP ART UNIT: 1312

EXAMINER: V Manoharan

10 New Title: DISTILLATION DEVICE; a continuation in part of
serial number: 08/762717

New Applicant: WILLIAM POSSIDENTO

Address: 19 KAREN DR.; TINTON FALLS, NJ. 07753

15 TRANSMITTAL

Hon. Commissioner of
Patents and Trademarks
Arlington, VA. 22202

20

Sir:

Please find enclosed the following:

25 1. Request for File Wrapper Continuation for the above
referenced parent case;
2. Preliminary Amendment;
3. Two sheet(s) drawings;
4. Pat. declaration;
5. Request for extension of time, 2 months;
30 6. Filing fee of \$385 and late fee of \$195 total: \$580 (check).

Respectfully submitted,

John P. Halvonik
Registry No. 32,796
Attorney for applicant

40 Law Offices of John P. Halvonik
806 W. Diamond Ave.
Suite 301
Gaithersburg, MD. 20878
(301) 990-9393

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15 REQUEST FOR FWC PROCEDURE

Hon. Commissioner of
Patents and Trademarks
Arlington, VA. 22202

20 Pursuant to rule 62 please file a file wrapper continuation
application of the above pending complete application. This
rule 62 continuing application is being filed in the PTO
during the pendency of the above referenced application.

25 Please use the spec (including abstract) of the above
application.

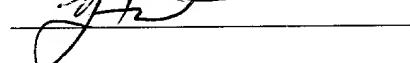
Enclosed is a preliminary amendment to the specs and claims
for this rule 62 application.

30 Please use the original drawings of the above application as
well as 2 sheets of additional drawings enclosed herewith.

35 After entry of this preliminary amendment there will be not
more than 3 independent claims and 20 total claims. A small
entity declaration has been previously submitted for the
above application. Therefore, the filing fee will be \$385;
there is also a fee extension of two months, total, (two
checks) enclosed.

40

Respectfully submitted,



John P. Halvonik
Registry No. 32,796
Attorney for applicant

5

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DECLARATION FOR PATENT APPLICATION

As below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am:

the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

DISTILLATION DEVICE; a continuation in part of serial number: 08/762717;

the specification of which [X] is attached hereto as a preliminary amendment.

I hereby claim the benefit under Title 35, United States Code, sec. 120 of the United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, sec. 112. I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, sec. 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

US Ser. no.: 08/762717 filed 12/10/96 now abandoned.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations. sec. 1.56(a).

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Address all telephone calls to:

John P. Halvonik, Reg. No. 32,796
806 W. Diamond Ave.
Ste 301
Gaithersburg, MD. 20878
tele: (301) 990-9393

17 25 Sept. 1997

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment or both, under section 1001 of Title 18 of the U.S. Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor:

William Possidente ~~William Possidente~~ citizenship: U.S.A.
Signature William Possidente Date 25 Sept. 1997

Residence:

19 Karen Drive
Tinton Falls, NJ 07753

Post Office Address:

Same as above.

IN THE UNITED STATES PATENT OFFICE

INVENTOR: WILLIAM POSSIDENTO
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PRELIMINARY AMENDMENT

Please make the following changes with respect to the parent
patent application referred to above:

In the specs:

On page 4, line 16 insert the following passage:

--Fig. 5 shows a cross sectional view of hinged embodiment.
Figs. 6 and 7 top view of alternate embodiment where a tube
can be branched.--

On page 5, line 21 insert the following passage:

-- Another possible alternative embodiment is that shown in
fig. 5 that is a cross sectional view. This illustrates a
hinged version of the invention in which the trough would be
constructed as two halves, an upper half 24 and a lower half
26 with a hinged connection 22 between the two halves. The
hinge, of course, allows the two halves to pivot in relation
to one another. The division between the halves should be

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running parallel to the length of the trough so that the halves would form an upper and a lower half.

Figure 5 also illustrates an optional embodiment for the shape of the upper half of the trough. In figs. 1, 3 and 4 the top of the trough is shown as a "V" shape. In fig. 5 a "U" shaped type of indentation 20 is shown in the upper half of the trough. This "U" shape indentation may be used with those other embodiments shown in this application aside from the "V" shaped versions, that is, the "U" shape is not limited to use only with the hinged embodiment.

In the hinged embodiment, the upper half of the trough would be hinged to the lower half so that the U shape would be at the top of the upper half. The trough may be constructed in sections to facilitate the movement of the upper and lower halves. The use of the hinged connection would allow the halves to be separated from one another along the length for easier cleaning of the inside of the trough. The use of the hinge would also enable the user to tilt the upper half to one side (as shown) in order to empty the contents (which may include rain) of the external surface the U shape, i.e. that surface that is outside the trough and exposed to the elements, this in distinction to the internal surface.

The trough can also be constructed as an elevated trough 28 in fig. 5. An extended portion 26 would extend upward from the bottom of the trough in order to support the trough at distance above the lower surface 26. Again, this embodiment can be used with any of the other embodiments shown in the invention and does not have to be used only with the hinged construction.--

Insert the following on page 6, line 34:

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Photochromic enhancement may be very desirable for chemical separations, such as the removal of gasoline from water. The photochromic properties would be desirable to achieve an optimum temperature that would maximize the volatilization and the condensation of the gasoline components while minimizing the volatilization and condensation of water. Prior art methods do not employ the use of photochromic properties.--

Insert the following on page 7, line 39:

--Among the advantages of using a tubular design similar to a pipe for the distillation device is that large amounts of liquids can be purified using the pipe for a continuous type of process with unpurified liquid continually being fed at the beginning of the pipe and the purified batch coming out of the other end. Distillation and transport of the liquid can occur at the same time in such a process. Prior art devices that utilize a simple container do not have the advantage of being able to be used in a continuous process.

Branched tubes shown in fig. 6 and 7 can be used to divide the flow of liquid and divert it to more than one location during the purification process. In both examples, this version of the tube would have a pair of side troughs running down each side of the tube e.g. the version shown in fig. 2. One of the side troughs will branch to the left and one to the right at these "T" shaped branched portions. Further branching of each branch can be used to provide purified liquid to a variety of locations.--

In the claims:

Cancel previous claims and add the following claims:

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1. An improved distillation device comprising: an enclosed outer tube adapted for the flow of liquids, said outer tube having an inner surface and an external surface and having a central axis running the length of said tube, said outer tube having a cross section of ovoid construction and having an upper section, said upper section having an indented portion having a lower most point at about the center of said upper section so that said lower most point is above said central axis of said outer tube, a trough portion in connection with the inner wall of said tube and running parallel to said central axis, said trough portion having a curved surface so as to collect liquids that condense on said upper section and fall into said trough portion, said outer tube having an enclosed construction and having a vacuum forming means in connection with said outer tube so as to enhance the distillation of the liquid in said tube.

2. The apparatus of claim 1 wherein said outer tube has a lower section, said lower section having a material that is reflective of radiation, said reflective material so disposed on said lower section so as to reflect solar radiation upward in the direction of the liquid in said outer tube.

3. The apparatus of claim 2 wherein said lower portion has a darker coloring so as to enhance the absorption of said solar radiation.

4. The apparatus of claim 1 wherein said upper section has a material that is photochromic in nature so as to get darker in color in response to changes in the intensity of said radiation.

5. The apparatus of claim 1 wherein said outer tube is divided into two halves along a line parallel to said central axis, each of said halves in connection with a means for

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hinging said halves so as to allow said halves to pivot with respect to one another

6. An improved distillation device comprising: an enclosed outer tube adapted for the flow of liquids, said outer tube having an inner surface and an external surface and having a central axis running the length of said tube, said outer tube having a cross section of ovoid construction and having an upper section, and having pair of trough portions running parallel to said central axis and in each connection with said inner surface of said outer tube, said trough portions located on opposite sides of said outer tube and of curved surface so as to collect liquids that condense on said upper section and fall into said trough portions, said upper section having an indented portion having a pair of lower points disposed so that said lower points are above said pair of trough portions,

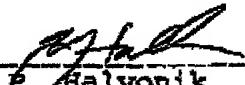
7. The apparatus of claim 6 wherein said outer tube has a lower section, said lower section having a material that is reflective of radiation, said reflective material so disposed on said lower section so as to reflect solar radiation upward in the direction of the liquid in said outer tube.

8. The apparatus of claim 7 wherein said lower portion has a darker coloring so as to enhance the absorption of said solar radiation.

9. The apparatus of claim 6 wherein said upper section has a material that is photochromic in nature so as to get darker in color in response to changes in the intensity of said radiation.

10. The apparatus of claim 6 wherein said outer tube is divided into two halves along a line parallel to said central axis, each of said halves in connection with a means for

hinging said halves so as to allow said halves to pivot with respect to one another.


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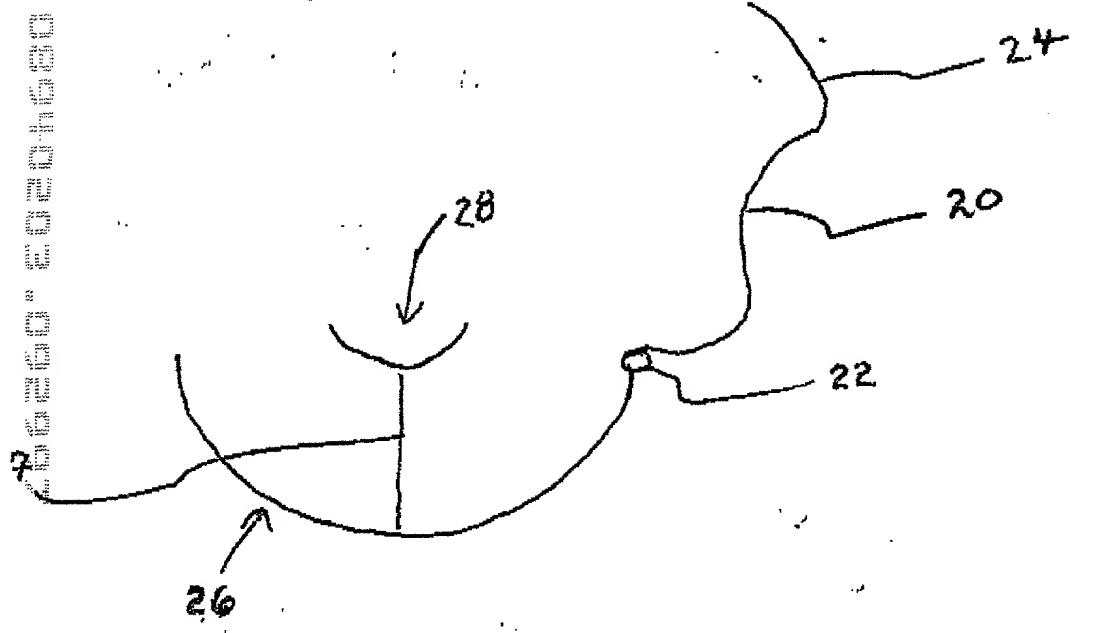


fig 5

Cross- sectional view.

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Tubular designs afford other possibilities. **INSERT A**
 These illustrations in map view show how tubular designs could accommodate branching. Additional branching of the branches would permit widespread distribution of water to multiple locations.

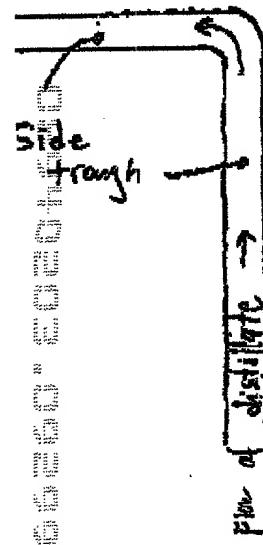
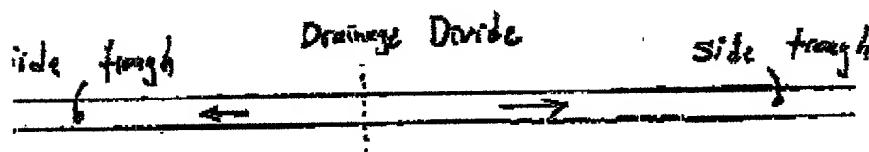


fig 6.

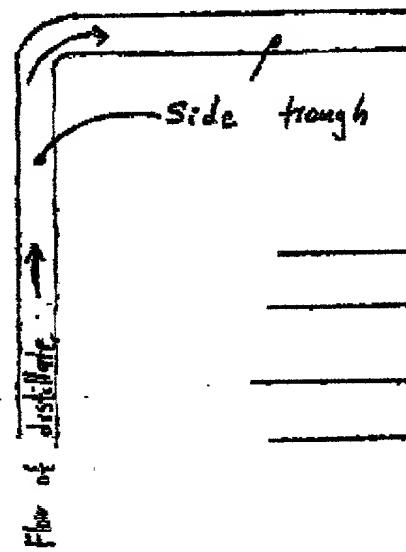
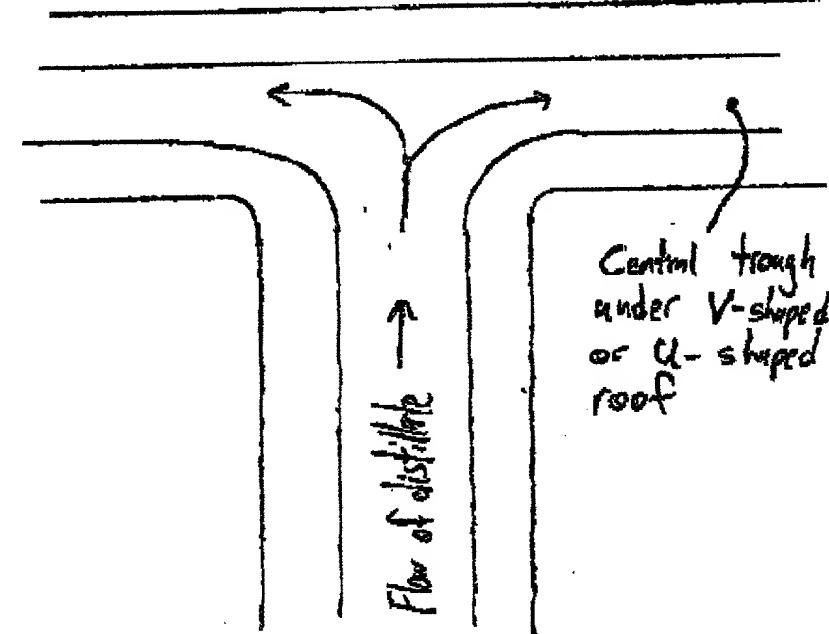


fig 7



William Possidente *WF* 18 Sept. 1997

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25 Sept. 1997

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